

# Abstract Submission Form

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**Preferred presentation**

Oral

**Preferred session**

Session 10: New approaches in the field of functional traits for management and breeding

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**Title of your paper**

Improving animal health and welfare by using sensor data in herd management and dairy cattle breeding – a joint initiative of ICAR and IDF

**Insert ABSTRACT text**

Digitalisation is advancing with rapid developments in farm technologies, which has the potential to revolutionize and to improve the long-term sustainability of dairy production. Farmers are increasingly implementing sensors and other technologies that monitor various parameters. Large amounts of data

are collected, but just a small fraction is currently used along the dairy value chain. This has motivated the International Committee of Animal Recording (ICAR) and the International Dairy Federation (IDF) to start a joint initiative aiming at providing guidelines and best practices for using data from sensors across systems and applications, with a focus on functional traits such as health and animal welfare. The key partners are the ICAR Functional Traits Working Group and the IDF Standing Committee of Animal Health and Welfare who have formed a network of representatives from various stakeholder and leading scientists. Research and approaches to improve the usability of data are discussed to promote knowledge transfer and practical implementation in the dairy industry. Experiences and best practices are exchanged, and recommendations for the use of sensor data are being elaborated. The results will be broadly disseminated through ICAR and IDF avenues. Furthermore, the collaborations among multidisciplinary experts are enabling a holistic approach to the current challenges faced by the worldwide dairy industry and will facilitate cutting-edge research and innovation. The initiative will be presented, with a progress report on reference standards, harmonised definitions and terminology, as well as recommendations and best practices regarding data cleaning and editing and definition of novel traits using data from sensor technologies in herd management and genetic evaluations.

**Enter keywords**

sensor, animal welfare, reference standards, harmonisation, validation, breeding